

Squibb (Ed. R.)

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Box

AN APPEAL

FOR THE

MATERIA MEDICA

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Medicine as a department of human knowledge, and as an object of study and research, embraces both a science and an art. That is, it embraces not only a collection of abstract principles and truths, and the theoretical deductions drawn from these through observation, experiment and reason; but it also embraces the practical application of the deductions of science, and the disposition or modification of means by human skill to effect the purposes for which knowledge is sought, namely, the good of mankind.

Thus the science of medicine may be defined as an inquiry for the principles or natural laws which affect the human life and health, and the general influences which naturally apply to health, and the object of the science is so to find out and establish all the laws which favor or oppose health that they may be controlled.

The art of medicine consists in the application of knowledge and skill to the selection and use of means for controlling the laws found out and established by science.

The medical philosopher therefore ascertains the principles, makes out the design and plans for the construction and repair of human health; whilst the medical practitioner carries out the design, executes the plan, and realizes the result. Should the designer overrate or underrate or neglect any important principle; or should any such escape his knowledge or his research, the practical results will be proportionally defective, and the artificer will imperfectly attain the common object.

Now the science is very important, for without it medicine once was, and must always have remained to be empiricism. But the art, or the skillful application of the attained knowledge is still more important, not only as being the object of the science, but as the practical trial by which the deductions of science are to be established or rejected; by which theoretical speculation becomes positive useful knowledge, or is abandoned as error.

The theory of the present system of medical education treats the profession of medicine only as an art; and the science is merely brought in to exhibit the fundamental principles upon which the art is to be learned and practised; scientific investigation and advancement being properly left to mature scholarship. Anatomy, physiology and chemistry are concentrated to ascertain the causes and character of diseases, while hygiene and therapeutics are concentrated upon the prevention and cure. Practical medicine and surgery, including obstetrical medicine and surgery, being the center to which the other branches convey. The symmetrical concentration of all these elements of medical education upon the three practical branches of the applied art can alone produce a symmetrical result, and hence a want of symmetry or parallelism must tend to error and loss of

balance in that knowledge, upon which basis alone sound judgment can be made up.

The result of a somewhat intimate association with one particular branch of the art of medicine, namely, the *Materia Medica*, has during some years past, forced upon the writer the conviction that this department, as well as that of hygiene, has been so far outstripped by the progress of other branches, as to have fallen into an unmerited disregard, if not contempt. The results of physical exploration, microscopic observation and chemical progress, have so facilitated the acquisition of knowledge of the essential nature and character of disease that the efforts of science in that direction have been overstimulated; whilst the comparative ease with which these efforts have been prosecuted, added to the attractive novelties of the investigations, and above all, the success which has attended them, have tended to monopolize the talent, industry and interest of the profession upon these special studies to the neglect of others, and therefore to the injury of the art as a symmetrical whole. Of what practical artistic value or use is an exact knowledge of the nature of disease, if this be not associated with a parallel knowledge of how to prevent or cure it. The accomplished diagnostician of the present day, can, in a large majority of cases, decide with great accuracy the essential characters and stages of disease, but can claim no such skill or accuracy either in their prevention or their cure; and worse than this, appears determined to leave this field of labor thus daily and so forcibly urged upon him uncultivated, satisfied to talk of ventilation and exercise, and to depend upon his opium, alcohol, quinia and iron alone, while he pushes forward to new investigations in his favorite field with a sharpened industry and increasing energy, which, if judiciously divided with the neglected field, would be much more likely to secure equal progress and improved results. This, perhaps, undue exaltation of the science of medicine above the art, and the unequal cultivation of the different departments of the science cannot fail, by the consequent imperfection of its practical results, still further to unsettle the foundation upon which both the art and the science depend for support. To demonstrate with mathematical accuracy that a certain group of symptoms prove a granular degeneration of the kidney, and that such degeneration produces uramia, and that uramia alters the functions of the nervous centers, and that these deranged functions result in death; and to do this by a chain of logical sequence which is perfect; and to confirm all this during life and after death, is a wonderful triumph of science, which illustrates the progress of but a few years; and it benefits mankind just as all accumulations of abstract knowledge must always do. But unless there be a parallel rate of progress in the knowledge of how to prevent or interrupt this degeneration, mankind may fail to appreciate the value of such triumphs; and the utilitarian spirit of the age may look upon them with such contempt that the conservative influences of common education—the only support of truth against error—are either dissipated, or shared with all the absurd hypotheses whose promises of better results are accepted in proportion to their superficial plausibility.

Such reflections as these can neither be new nor strange to the thoughtful, and therefore it appears very singular that so much of the best talent

of the profession is absorbed in the investigating and teaching of the subjective part of medicine, and so little attention given to the objective. Therapeutics as a study, with a view to any such progress as pathological anatomy has made, is rarely thought of; whilst the *Materia Medica*, which in its importance to therapeutics, holds a relation not unlike that of anatomy to physiology, is left to progress by such accidents as the discovery and application of anæsthetics, or a prey to the avarice of charlatanism. Even the simple chemistry involved in the *Materia Medica* is neglected and disused, whilst that involved in physiology and pathology is studied up and taught with care, so that many a medical student knows more of the chemistry involved in the glycogenic functions of the liver than of that involved in the choice of an aperient. It has happened that a medical man who knew the character and functions of the epithelium well, both chemically and microscopically, would assert that the cantharidal collodion of the pharmacopœia was an inert and useless preparation, and would require to be taught by his apothecary that his criticism depended upon his ignorance of his own art, and his failure to apply his science; and yet this is not an excusable kind of ignorance, for such a practitioner would never think of applying the agent successfully to the sole of the foot. Commencing with the organization of the medical schools, and from this point extending throughout the career of medical men there taught, too little attention is given to the *Materia Medica* and general therapeutics. Men of extraordinary ability and knowledge are selected to teach all the higher scientific branches, whilst with rare exceptions the others are taught as they were many years ago—that is, as far as their relation to the present state of the sciences go, scarcely taught at all. Besides the inability to control most of the diseases they so critically diagnose, medical men inherit from this condition the common fruit of ignorance, namely, skepticism, so that many of the ablest minds in medical science at the present day will declare, whenever they can, their want of faith in drugs. They will constantly use three or four prominent ones, and by this usage, if not upon principle, will admit the adaptation of means to ends here, as in the universal laws of nature. But absorbed by more attractive researches, and disgusted with the polypharmacy which their own skepticism excites and supports in many around them, they resort to the fool's argument of wholesale condemnation, and hugging themselves within their self-constructed paradise, they stolidly lead followers astray. It is not a little strange that the leaders in a liberal profession, whose successes depend upon the most minute investigations and the most critical discriminations in the operation and aberrations of natural laws—whose minds habitually lead with logical precision from the known to the unknown—from means to ends—will plant themselves as obstructions in the road to this kind of knowledge, and maintain their ground of want of faith in drugs against their own practice with the few they do employ, and against evidence which, in their own favorite researches, would be accepted as positive proof. How can any balanced mind refuse to admit the special adaptation of drugs, and the value of study by which their uses might be developed and realized, in view of such examples as are furnished in the adverse action of belladonna and Calabar bean upon the two extremely delicate planes of contractile fibers which

constitute the iris; in the action of American hellebore upon the heart; in the action of anæsthetics upon the nervous centres; in the action of ipecacuanha and belladonna on the mucous membranes; and in the action of ergot upon the uterus. In no known department of scientific research would such evidences be denied by their legitimate effect of stimulating a closer investigation, and in few departments are the results so bold and definite.

If the position here assumed be accepted as truth, the remedy for this condition of the profession is to be found in a more special and general cultivation of this field laden with its abundant harvest of fruit; and the object of this paper is to appeal earnestly to the profession as represented in this Society, in behalf of a more critical and more thorough study of chemistry, materia medica and hygiene. In making such an appeal, it seems hardly necessary to say that the looked for progress and advancement does not by any means consist in a more general use of drugs, nor their application in larger quantities, but rather in a condition exactly the reverse of this, since it is undoubtedly true that study and investigation leading, as it always does, to a nicer and more accurate discrimination will diminish the quantity, but improve the quality of the drugs used; and will substitute for the present expectantism on the one hand, and lavish promiscuous misuse of drugs on the other, a more careful and critical application of the present knowledge, and much more general, earnest and industrious effort to improve and extend that knowledge. A large proportion of the rising profession is now taught both expectantism and old empirical medication in the schools. Confused by this teaching, the tendency seems to be to run into a profuse use of drugs in search of some definite personal experience, which proves costly alike to the patients, the physician and the rate of progress in the art of medicine. And just so long as therapeutic doctrines lie scattered around as the results of personal experience and prejudice, will the art of medicine be empirical and unsound, and devoid of uniformity either in application or results; and will fail of deserving or obtaining anything like a universal acceptance and support of the educated and intelligent classes of mankind. It is the inherent weakness of the art of medicine from these causes, through which it is lowered to a level of competition with quackeries which spring from and grow upon this weakness.

Increased knowledge of the physical and chemical character of medicinal agents among physicians, and the discrimination that would naturally result from it, would very soon improve the markets for these commodities, and this is absolutely necessary as a basis for any useful degree of uniformity in application or result. Few of those who teach or lead in the medical profession ever see a medicinal agent until it arrives diluted or compounded at the bedside of the patient, and here it is rarely possible to distinguish it critically. The utmost that is attempted in security for the character and quality of the agents is a direction that the prescriptions be sent to a designated pharmacist. Upon this merchant, then, who buys and sells for gain, is thrown the entire responsibility of the application of what little is known of drugs, while the prescriber satisfies himself with a supposed knowledge of the pharmacist—a knowledge which is about as unreliable as anything can be. What sane man would trust his diagnosis upon the same ground he trusts his treatment? Who would order his

microscope as he orders his drugs? No one, if he could help it. Yet all might help it if the profession chose to acquire its own knowledge in the interests of its own art, and to extend its investigations equally into all the departments of its science and art, rather than intrust the most vital of all its interests, almost uncontrolled, within the well known influences of common trade and pecuniary profits. Of all the liberal professions, that of medicine can least afford ignorance or unequal knowledge in its different branches; first, because its results are vital in character, irresistible, irrevocable and universal, and are through suffering and adversity impressed upon the scrutiny of all who live; and second, because nothing can either compensate, supply or long conceal the defective knowledge, particularly when this so nearly affects the attainment of the whole object of the profession.

From all these considerations may we not,—must we not admit the primary importance of therapeutics and hygiene in medicine; and can we resist the evidence that these branches are very far behind all the others in their status and rate of progress; and further, that this condition is due to unmerited, if not culpable neglect. Then, as “there is no royal road to knowledge,” and as reaping machines cannot gather this harvest, let the labor first be fully realized, and then be manfully accepted and patiently performed.

In order that there may be some organization in this society that may at least serve to keep this subject in useful remembrance, the following resolutions are offered for consideration:

Resolved, That a committee of five, to be called The Committee on Pharmacology, be appointed by the President, to hold office until the annual meeting of 1871.

Resolved, That it shall be the general duty of the members of this committee, individually, to accumulate knowledge upon medicinal agents and their application, and to report the results of their researches separately, through the chairman of the committee, annually to this Society.

Resolved, That it be a special duty of this committee to take charge of the interests of this Society in the United States Pharmacopœia, and to collect, arrange, preserve and transmit all accessible information and knowledge that may be useful in the next decennial revision of that work in 1870. And to carry out the general provisions and requests of the National Convention of 1860, as they apply to this Society as a constituent of the National Convention of 1870.

Resolved, That this committee report to the Society at its annual meeting in 1870, the names of three members of the committee, who, if confirmed by the action of the Society, shall serve as the representative delegates of the Medical Society of the State of New York in the national convention of 1870, for revising the United States Pharmacopœia, to be held in Washington on the first Wednesday of May, 1870. And that the delegation thus constituted be authorized and directed on behalf of this Society, to conform to the rules adopted by the last National Convention, to facilitate the organization and effect the objects of the next one.

Resolved, That this committee shall apply to the Society to supply any vacancies that may occur in its numbers.

The term Pharmacology is preferred to Materia Medica in the title of this committee, because it is uniform with Pharmacopœia, Pharmacy, Pharmaceutist, &c., and because it substitutes for two words one which conveys the entire meaning. The committee is proposed to be continued until 1871, for the purpose of embracing the decennial convention for revising the Pharmacopœia in 1870, and is appointed thus early that the members may have time to prepare themselves for efficient and intelligent action in the convention, as the representatives of this Society.

The reason for proposing that each member of the committee shall act and report to the Society independently is: First. That this secures to each the credit and responsibility for what he does and says, and should incite to special interest and activity in the subject. Secondly. It saves the imposition of undue and unnecessary labor on the chairman, and relieves that officer from the difficult duty of bringing five different sets of opinions into accord, a task rarely well accomplished, and which, when the members of a committee are scattered over a State as contemplated here, can only be done at the expense of much time and labor in correspondence. Thirdly. It prevents the vicious practice, too often adopted, of the chairman's presenting a report on behalf of the committee, in which the other members have had no part, and which may not express their views properly. Fourthly. It confines the duties of the chairman to what properly belongs to the office, namely the serving the committee by presiding over its work and recording its action, and transmitting its communications, including his own, to the Society.

The remaining resolutions provide for a better and more methodical representation of the Society in the next National Pharmacopœia Convention, and sufficiently explain themselves.

Dr. Wm. B. Bibbins moved that the paper of Dr. Squibb be received by the Society. Adopted.

Dr. Sayre called for the reading of the resolutions separately, and as each was read moved its adoption. They were severally adopted.

Dr. Sayre moved that a copy of the paper and resolutions presented by Dr. Squibb be transmitted to the different State Medical Societies, with the request that they take similar action. Adopted.

The President appointed Drs. Ed. R. Squibb of Brooklyn, Howard Townsend of Albany, C. Green of Cortland, Wm. Manlius Smith of Onondaga, and John Towler of Ontario as the committee.